Remarks

Claim Rejection – 35 USC § 102.

On page 2, point 2, the Office Action rejected claim 1 under 35 U.S.C. 102(e) as being anticipated by Matthies (U.S. Patent No 6,498,592). Reconsideration is requested.

Claim 1, describes a tiled emissive display having distributed processing means and in which:
"the distributed processing means performs real-time calculations of the lifetime of the pixels of the correspondent display tile".

In this respect, the Examiner states in the Office Action that:

> *"Matthies further discloses the tiled emissive display (Fig. 1) wherein the distributed processing means (134) performs real time calculations of lifetime of the pixels correspondent display tile (a processing perform calculation various pixels at the circuitry 134 may include an compensation system which continuously adjusts (real time calculations) the brightness of the individual pixels to compensate for the lifetime; the brightness of an OLED pixel that occurs with aging (lifetime) can be predicted by measuring the current and the time. This product can be fitted to a characteristic curve and used to adjust the drive current to predict a new drive current which restores the original brightness level of the pixel, .. .the decay in the brightness and the initial decay slope (light output) can be measure during the burn in (ON time or lifetime of the pixels) and used as a second order correction; see column 11 lines 1-15, also see another method using the claimed ON time, the brightness for performs real times calculations of the life time of the pixels of the correspondent display tile as described in column 11, lines 21-54)"*

Applicant respectfully disagrees.

Before starting a detailed analysis of the Matthies document, it is important to

discuss briefly the difference in meaning between the words "lifetime" and "aging".

According to Webster's Encyclopedic Unabridged Dictionary (1996),

- "lifetime" means: "the time that the life of someone or something continues; the term of a life"
- "ag(e)ing" from the verb "to age" means: to grow or to make old.

Lifetime is thus not a synonym for aging.

In the context of the present invention, by "lifetime of the pixels" is meant the time duration the pixels will go on functioning, which constitutes a "100% lifetime guarantee for the OLED tile assembly"(see the description, page 34, lines 8-9). Lifetime is thus linked to the future.

"Aging" is linked to the time the OLED has been working in the past, which is influencing the brightness of the OLED.

It is admitted that Matthies discloses distributed processing means which performs some calculations. In particular, the circuitry, described in Matthies, " *continuously adjusts (real time calculations) the brightness of the individual pixels*", but these adjustments are compensating for aging, not for the lifetime (see Matthies, col. 11, lines 1-3:" *Alternatively, the circuitry 134 may include an all electronic compensation system which continually adjusts the brightness of individual pixels to compensate for aging.*"). In principle, lifetime cannot be compensated, but is a fact that can be influenced by some factors like ON-time of the OLED, current, and temperature. But lifetime is expressed in time units, e.g. hours and gives a value indicating how long the OLED will function in the future. In Matthies, the compensation is done :" *by measuring the current and time for a particular pixel, and integrating the product of current and time.*" (see Matthies, col. 11, lines 5-7). Temperature is not mentioned in Matthies as a factor for calculating aging. The result of the calculation, done in the Matthies circuit, thus gives an indication of the "aging" of the OLED and the adjustments are based on this aging. It is also noted

that in Matthies, time is measured, not calculated.

The method disclosed in col. 11 lines 21-40 of Matthies is also a method of compensating for loss in brightness due to aging and there is also no mentioning in this paragraph of any calculation of lifetime.

As indicated already above, by calculating the lifetime of the individual OLED's, it is possible to predict the lifetime of the tile assembly with 100% guarantee, i.e. how long the tile assembly will continue functioning at 100% (without any defective OLED), because the lifetime of the tile is determined by the lifetime of its individual OLED's.

Such a prediction is not possible in the Matthies system: in Matthies, adjustment of the OLED is going on until somebody decides to replace the OLED. There is no indication given when the OLED or the tile should be replaced.

From the above, it follows directly that Matthies does not disclose the limitation in claim 1 that the distributed processing means performs real time calculations of lifetime of the pixels correspondent display tile and claim 1 is thus not anticipated by Matthies.

Claim 1 is also non-obvious over the prior art because this prior art does not contain any indication or hint pointing at a distributed processing means performing real time calculations of lifetime of the pixels correspondent display tile.

Claim 1 is, by consequence, submitted to be allowable.

Claim Rejection - 35 U.S.C. 103

On page 4, point 4, the Office Action rejected claims 24-34 under 35 U.S.C. 103 (a) as being unpatentable over Matthies as applied to claim 1 and further in view of Cok.

Claims 24-34 are dependent claims, and are submitted to be allowable as the independent claim is allowable.

Claim Rejection - 35 U.S.C. 103

On page 6, point 5, the Office Action rejected claim 29 under 35 U.S.C. 103 (a) as being unpatentable over Matthies and Cok in view of Ogino et al. (U.S. Patent No 6,791,513).

Claims 29 is a dependent claim, and is submitted to be allowable as the independent claim is allowable.

Given the above, it is submitted that the application is in condition for allowance, and such action is requested.

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